AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

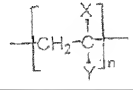
1. (Currently Amended) A product, or gas-associated form thereof, for use as blood substitute or depolluting agent, said product comprising a copolymer non-covalently associated with a hemoprotein;

said particle comprising a core portion and a surface portion,

said core portion comprising a hydrophobic segment of formula (I) and said surface portion ~~associated with a sequenced block copolymer~~ comprising an oligosaccharide or polysaccharide hydrophilic segment covalently linked via one of its ends to a single hydrophobic segment of formula (I), or via each of its two ends to a hydrophobic segment of formula (I), the two hydrophobic segments being the same or different, said core portion and said surface portion forming a sequenced block copolymer,

said hemoprotein being non-covalently associated with said surface portion;

wherein formula (I) has the following structure;



(I)

in which:

X represents H or an alkyl, CN or CONHR radical,

Y represents a COOR', CONHR" or C_6H_5 radical,

with R, R' and R" representing, independently of one another, a hydrogen atom, a linear or branched C_1 to C_{20} alkyl group, a linear or branched C_1 to C_{20} alkoxy group, an amino acid radical, a mono- or polyhydroxylated acid radical or a C_5 to C_{12} aryl or heteroaryl radical

~~wherein the sequenced block copolymer is formulated as a particle whose core comprises the hydrophobic segment of formula (I), and the oligosaccharide or polysaccharide hydrophilic segment lies at the surface of the particle; and~~

~~wherein the hemoprotein is associated with the oligosaccharide or polysaccharide~~.

2. (Previously Presented) The product of claim 1, wherein the hemoprotein is a normal hemoprotein, a modified hemoprotein, or else a hemoprotein analogue in which the iron is substituted with another metal.

3. (Currently Amended) The product of claim 1, wherein the hemoprotein is a normal or modified hemoglobin,

wherein said modified hemoglobin is a bridged hemoglobin, a polymerized hemoglobin, a mutated hemoglobin or a hemoglobin comprising peptide chains.

4. (Previously Presented) The product of claim 1, wherein, in formula (I), X represents a CN radical.

5. (Previously Presented) The product of claim 4, wherein the hydrophobic segment is a poly(alkyl cyanoacrylate).

6. (Currently Amended) The product of claim 1, wherein the hydrophilic segment ~~that is saccharide in nature is~~ a natural or synthetic oligosaccharide or polysaccharide, that may or may not be modified.

7. (Withdrawn) The product of claim 1, wherein X represents H and Y a phenyl or ester radical.

8. (Previously Presented) The product as claimed in claim 1, characterized in that it is provided in the form of particles of 1 nm to 1 mm.

9. (Previously Presented) The product as claimed in claim 8, characterized in that it is provided in the form of nanoparticles.

10. (Previously Presented) A method of therapeutically treating a human or animal with a blood substitute comprising administering a product of claim 1 to a human or animal in need thereof with a therapeutically effective amount of said product.

11. (Withdrawn) The method of claim 10, wherein said human or animal is being further treated with an antitumor composition or antitumor therapy.

12. (Withdrawn) A method for depolluting gases from human or animal blood comprising administering to a human or animal in need thereof a therapeutically effective amount of the product of claim 1 such that, in the blood, the compound associates with the gas to be depolluted.

13. (Withdrawn) A pharmaceutical composition comprising a therapeutically effective amount of at least one product as claimed in claim 1, in the form of nanoparticles in combination with a pharmaceutically acceptable vehicle.

14. (Previously Presented) The product of claim 2, wherein the normal hemoprotein is a cytochrome or a myoglobin; the modified hemoprotein is natural or modified hemoglobin that is bridged, polymerized, mutated or comprises peptide chains; and the hemoprotein analogue is an analogue in which the iron is substituted with cobalt, magnesium, copper or zinc.

15. (Previously Presented) The product of claim 6, wherein the oligosaccharide or polysaccharide is dextran or heparin.

16. (Previously Presented) The product of claim 15, wherein dextran is sulfated.

17. (Previously Presented) The method of claim 11, wherein the product is used as a radiosensitizing agent.

18. (Previously Presented) The method of claim 12, wherein the gas is carbon monoxide or nitric oxide.

19. (Previously Presented) A composition comprising a product of claim 1, in the form of nanoparticles, and a vehicle.